

Name: \_\_\_\_\_

**p1106: Solve by factoring (v20)**

1. Solve the equation

$$x^2 + x - 72 = 0$$

$$(x - 8)(x + 9) = 0$$

$$x = -9$$

$$x = 8$$

2. Solve the equation

$$x^2 - 11x + 24 = 0$$

$$(x - 3)(x - 8) = 0$$

$$x = 8$$

$$x = 3$$

3. Solve the equation

$$2x^2 - 7x - 12 = x^2 - 2x - 6$$

$$x^2 - 5x - 6 = 0$$

$$(x + 1)(x - 6) = 0$$

$$x = 6$$

$$x = -1$$

4. Solve the equation

$$7x^2 + 5x - 7 = 6x^2 + 5x + 2$$

$$x^2 - 9 = 0$$

$$(x + 3)(x - 3) = 0$$

$$x = 3$$

$$x = -3$$

5. Solve the equation

$$7x^2 + 8x - 21 = 6x^2 + 2x + 6$$

$$x^2 + 6x - 27 = 0$$

$$(x - 3)(x + 9) = 0$$

$$x = -9$$

$$x = 3$$

6. Solve the equation

$$2x^2 - 5x - 42 = 0$$

$$(2x + 7)(x - 6) = 0$$

$$x = 6$$

$$x = \frac{-7}{2}$$

7. Solve the equation

$$5x^2 - 8x + 3 = 0$$

$$(5x - 3)(x - 1) = 0$$

$$x = 1$$

$$x = \frac{3}{5}$$

8. Solve the equation

$$6x^2 + 13x - 12 = 3x^2 + 2x + 8$$

$$3x^2 + 11x - 20 = 0$$

$$(3x - 4)(x + 5) = 0$$

$$x = -5$$

$$x = \frac{4}{3}$$

9. Solve the equation

$$6x^2 + 19x + 25 = x^2 - 8x - 3$$

$$5x^2 + 27x + 28 = 0$$

$$(5x + 7)(x + 4) = 0$$

$$x = -4$$

$$x = \frac{-7}{5}$$

10. Solve the equation

$$6x^2 + 18x + 13 = 3x^2 + x + 3$$

$$3x^2 + 17x + 10 = 0$$

$$(3x + 2)(x + 5) = 0$$

$$x = -5$$

$$x = \frac{-2}{3}$$